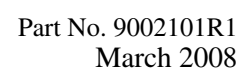


Cabinet Freestanding WE-8 Computer





WARNING

Failure to install, maintain, and/or operate this machine according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

W030

NOTE: The WARNING and IMPORTANT instructions appearing in this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution, and carefulness are factors which cannot be built into these washers. These factors MUST BE supplied by the person(s) installing, maintaining, or operating the washer.

Always contact the distributor, service agent, or the manufacturer about any problems or conditions you do not understand.

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Introduction

Model Identification

Information in this manual is applicable to these models:

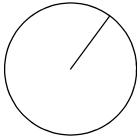
UX55PVXF6

UX55PVXF7

Programming

Setup of the Machine

RUN
PROGRAM



Program Cycle 00

Auxiliary
No Rotation

Hot
2
Med./F2

Spin
9
No Rotation

System Program
 _X18PV

Add Cycle

Advance

System Program
 _X25PV

Enter
Start

Units: English

Add Cycle

Advance

Units: Metric

Enter
Start

Drain 1 : Valve
 Drain 2 : None

Gold
1
Low

Drain 1 : Pump
 Drain 2 : None

Turn key from Run to Program

To go to the main setup of the machine, press “Auxiliary”, “2”, “9”.

To change the machine type, press the “Advance” button. The following types are possible:

_X18PV	_X55PV	_X135PV
_X25PV	_X75PV	_X165PV

Press the “Advance” button until the right type of machine is selected. Press the “Enter” button.

Select the desired units.

NOTE: English means level in inch and temperature in °F. Metric means level in cm and temperature in °C.

Press the “Advance” button to change the units.

Press the “Enter” button.

Select the type of drain valve.

Press “1” to change drain 1 to pump or valve.

Press “2” to change drain 2 to pump, valve or none.

Enter
Start

Options :

Aux Fill
8

Options :
Aux Fill

Enter
Start

Heating : 6 kW

Drain
0

Spin
9
No Rotation

Heating : 9 kW

Enter
Start

Advance : Yes

Add Cycle
Advance

Advance : No

Press the “Enter” button to select options.

Press the “Aux Fill” button for auxiliary fill option or press “Enter” for heating.

If heating is selected, the user can fill in the kW of the electrical heating (example: 9 kW).

Press “0”, “9”.

Press “Enter” to select advance mode in run mode yes or no.

Press “Advance” to change between yes and no.

Programming


Level : hyst 2"


Temp : hyst 3°F


Spin retries : 5


Address : 0


Enter to save ?


Program Cycle 00

Press “Enter” to set the hysteresis level (level at which water drops before it senses it must refill).

If English is selected for units, this value will be in inches. If Metric is selected for units, this value will be in cm.

Select between 1 to 9 cm or inches.

Press “Enter” to select the temperature hysteresis (level at which temperature drops before machine senses it must reheat).

If English is selected for units, this value will be in °F. If Metric is selected for units, this value will be in °C. Select 1 to 9 °C or °F.

Press the “Enter” button to set the spin retries. Select 1 to 9 spin retries.

Press “Enter” to set the network address of the machine. If this is not used, press “Enter”.

The address of the machine has to be set if you network the machine. Each machine should have a different address.

Fill in between 00 and 99.

Press “Enter” to finish the settings.

Press “Enter” to save the settings or press “Stop” to exit without saving.

Version of Control

To determine control version, apply power to machine. Control will display version of control (i.e., 1.15).

Language on Display (Version 1.15 and later ONLY)

To set a different language on the WE-8 display:

1. Turn key from RUN to PROGRAM.
2. Press “Auxiliary”, “2” and “9” to enter set-up mode.
3. English will display. Press “Advance” until desired language displays (French, Italian, Spanish and German).
4. Press “Enter” keypad.
5. Press “Enter” to advance through set-up mode.
6. Wait until information is saved.
7. Turn key from PROGRAM to RUN.
8. Display will read language chosen for all cycles.

Setup of the Chemical Hold Feature (Version 1.11 and later ONLY)

- At power up, verify that model is at least version 1.11. Refer to version of Control Section. Earlier versions do not have this chemical hold feature.
- Insert key into key switch and turn to Program.
- Push the Auxiliary key, the 2 key, and the 9 key in succession to enter System Program Mode.
- Push the Start key 10 times to arrive at the Chemical hold choice.
- Push the Add Cycle/Advance key to toggle the Chemical hold feature either Yes (on) or No (off).
- Push the Start key twice to save changes and exit System Program Mode.
- Turn key switch to Run.

NOTE: If chemical hold is on, then a switch closure/opening between pins 1 and 4 of the COIN header on the output board will control supplies 4 through 9. A closure will turn the programmed supply/ies on and count down the time for the supply to be on. An opening will turn the programmed supply/ies off and halt the time for the supply to be on.

NOTE: If chemical hold is off, then supplies 4 through 9 are controlled exactly like supplies 1 through 3. A switch closure/opening between pins 1 and 4 of the COIN header on the output board will have no effect.

Program Storing Mode

The WE-8 control is capable of 99 total Cycles. One cycle contains 1 or more steps.

One step is a function of the wash program (example: heat).

Choose between the following functions:

- | | |
|-----------|---|
| Fill: | To fill the machine with water. |
| Wash: | Wash action of the machine. |
| Supply: | To add detergent to the wash (liquid or powder). |
| Cooldown: | Cool to programmed temperature. |
| Heat: | To heat the water. |
| Soak: | The wash will be soaked for a programmed time and a programmed temperature. |
| Aux: | A relay contact will close for a programmed time. |
| Spin: | To spin the machine for a programmed time and RPM. |
| Drain: | To drain the water from the machine. |

Programming

Explanation of the Step Functions

Fill:

Choose between 4 water inlet configurations and 3 water levels.

Water Inlet Configurations:

- Cold: Only opens the cold water valve.
- Hot: Only opens the hot water valve.
- Warm: Opens the cold and hot water valves.
- Aux Fill: Opens an auxiliary water valve if installed.

Water Levels:

- Low: Low water level.
- Med: Medium water level.
- High: High water level.

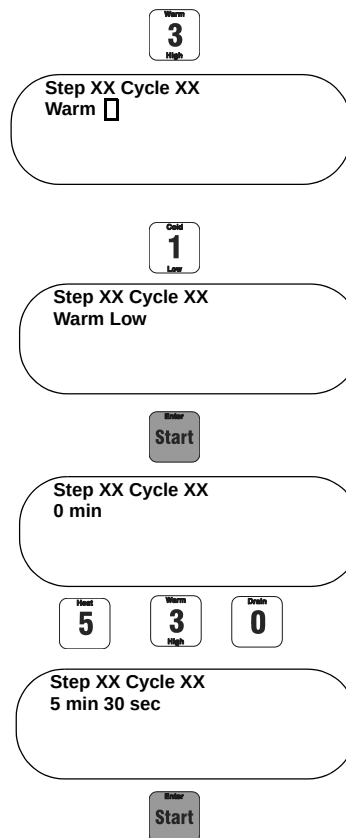
The inlet configurations and the fill levels appear on the keypad, keys 1, 2, 3 and 8.



Be sure to select first the inlet configuration and then the water level.

Then you will be asked for the step time limit.

Example: Warm Low (time limit 5 minutes 30 seconds)



NOTE: If a fill error occurs, then machine has 2 minutes to finish filling. If after 2 minutes it has not finished filling, cycle is aborted.

It is possible to more accurately control the temperature of water coming in to the machine during a fill step. This does not apply to “Aux Fill” step. The control will mix the hot and cold water inlet to the temperature programmed in the fill function. To fill in the temperature, select the water inlet type and the water level. Press the “Heat” button and the control will ask the temperature. In this way the water inlet type selected is of no use because the control will mix between the cold and hot water inlet to reach the temperature.

Example: Fill to low level and 95°F (step time limit: 5 minutes 30 seconds).

Warm
3
High

Step XX Cycle XX
Warm ☐

Cold
1
Low

Step XX Cycle XX
Warm Low

Heat
5

Step XX Cycle XX
0°F

Spin
9
No Rotation

Heat
5

Step XX Cycle XX
95°F

Enter
Start

Step XX Cycle XX
95°F Low

Enter
Start

Step XX Cycle XX
0 min

Heat
5

Warm
3
High

Drain
0

Step XX Cycle XX
5 min 30 sec

Enter
Start

Programming

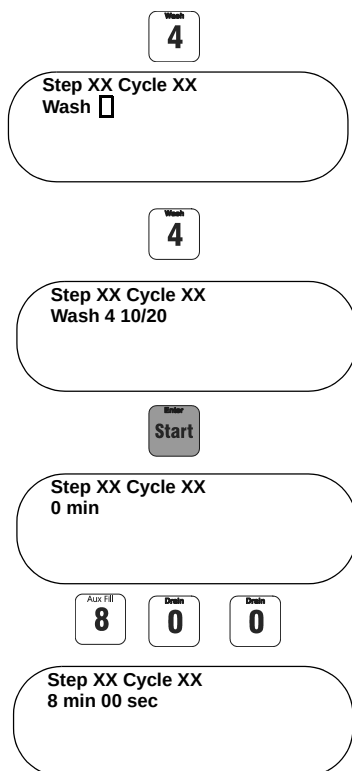
Wash:

Choose between 7 different preset wash actions.

	Action Time (sec)	Stop Time (sec)	G-force
Wash 1	18	3	0.5
Wash 2	3	27	0.5
Wash 3	0	0	0
Wash 4	10	20	0.5
Wash 5*	18	3	0.5
Wash 6	4	56	0.5
Wash 7	0	0	0

The “Wash” button is button 4 on the display.

Example: Wash 4 for 8 minutes 00 seconds.



* Refer to section on Wash 5 Thermal Cool-Down.

Supply:

Choose between 9 different supplies.

Supply 1: Turns on the water valve in compartment A of the supply box.

Supply 2: Turns on the water valve in compartment B of the supply box.

Supply 3: Turns on the water valve in compartment C of the supply box.

Supply 4: Activates supply pump 1.

Supply 5: Activates supply pump 2.

Supply 6: Activates supply pump 3.

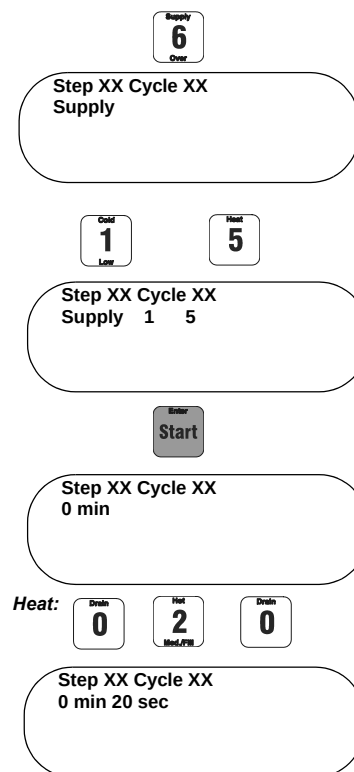
Supply 7: Activates supply pump 4.

Supply 8: Activates supply pump 5.

Supply 9: Activates supply pump 6.

The Supply button is button 6.

Example: Supply 1 and 5 for 20 seconds.



Chemical Hold Feature

Chemical supply injection can be paused. Refer to Setup of Chemical Hold Feature.

Wash 5 Thermal Cool-Down

Immediately after a heat step, a temperature-controlled thermal cool-down may be programmed to prevent fiber shock from sudden cool-down.

Wash 4

Step XX Cycle XX
Wash

Heat 5

Step XX Cycle XX
Wash 5

Enter Start

Step XX Cycle XX
0°F (or 0°C)

Drain 0 Spin 9 No Rotation Heat 5

Enter desired temperature for load to cool down to. Three digits must be used for temperature. If Fahrenheit, the valid temperature range is 80° – 200°F. If Celcius, valid temperature range is 25° – 90°C (example: 95°F).

Step XX Cycle XX
95°F

Enter Start

Step XX Cycle XX
0 hours

Cold 1 Low Enter Start

Step XX Cycle XX
1 hours 00 min

Thermal Cool-Down is Wash 5.

Drain 0 Heat 5 Enter Start

Enter time in minutes and press “Enter” (example: 5 min).

Step XX Cycle XX
1 hours 05 min

Enter Start

The “Heat” button is number 5.

Example: Heat up to 140°F with the time limit of 45 minutes.

Heat 5

Step XX Cycle XX
Heat

Enter Start

Step XX Cycle XX
0°F

Cold 1 Low Wash 4 Drain 0

Step XX Cycle XX
140°F

Enter Start

Step XX Cycle XX
0 hours

Drain 0 Wash 4 Heat 5

Step XX Cycle XX
0 hours 45 min

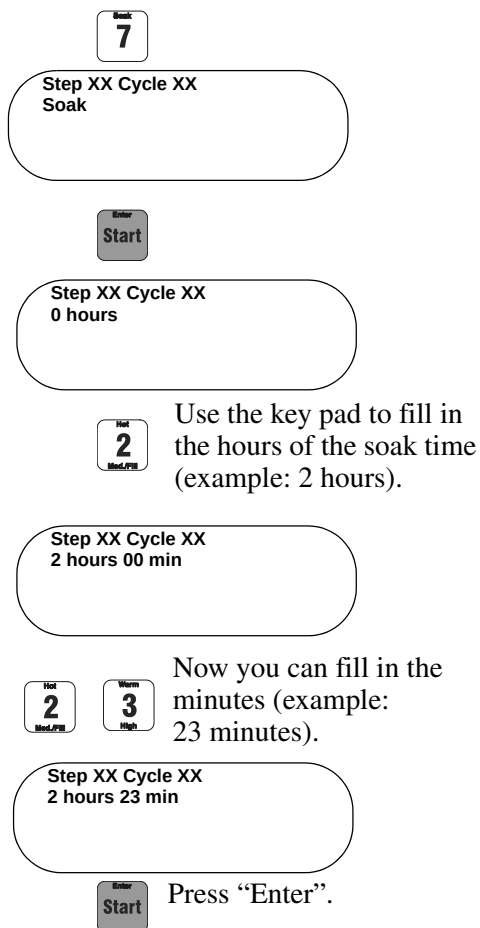
Programming

Soak:

Button 7 is the “Soak” button.

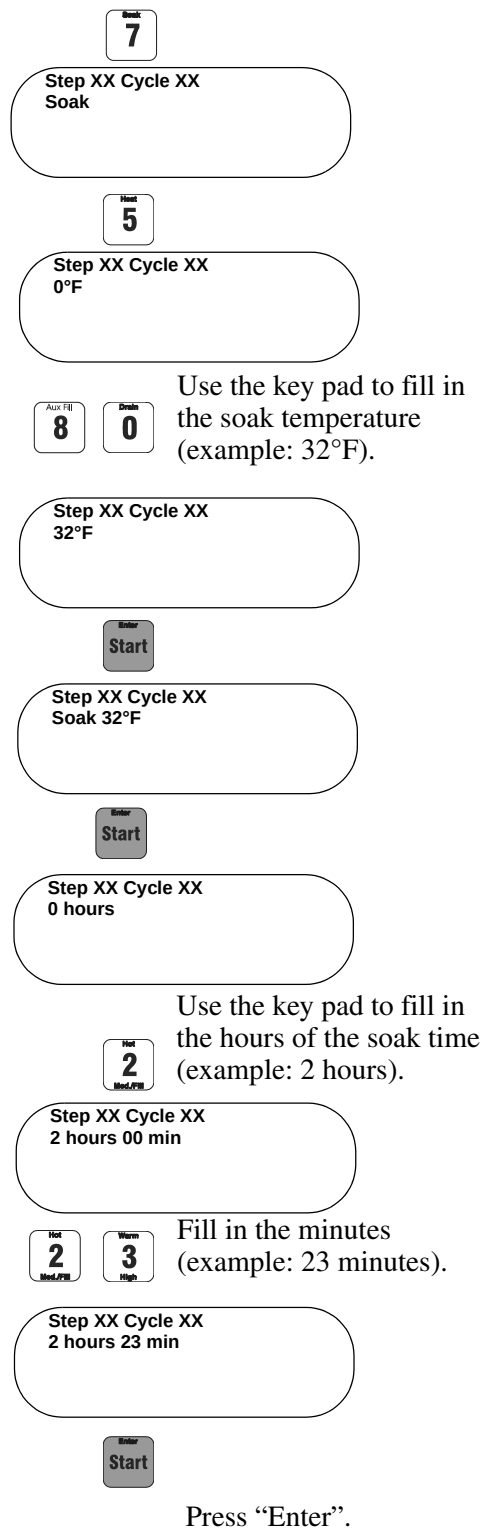
By pressing button 7, “Soak” will appear on the display. Press “Enter” to fill in the soak time.

Example: Soak for 2 hours.



The temperature of the soak will be the temperature programmed in the previous step. You can also change the temperature by pressing first “Soak” and then “Heat”.

Example: Soak time of 2 hours with 32°F.



Spin:

Choose between 4 preset spin speeds.

	18-75 Models	100/135 Models	165 Models
Spin 1 RPM	500	500	500
Spin 2 RPM	650	650	650
Spin 3 RPM	800	800	750
Spin 4 RPM	1000	80	750

“Spin” is button 9.

Spin

9

No Rotation

Step XX Cycle XX Spin

Warm

3

High

Select the spin number (example: 3).

Step XX Cycle XX Spin 3

Enter

Start

Step XX Cycle XX 0 min

Enter the spin time. Enter minutes first and then seconds (example: 5 minutes 30 seconds).

Heat

5

Step XX Cycle XX 5 min 00 sec

Warm

3

High

Drain

0

Step XX Cycle XX 5 min 30 sec

Enter

Start

Drain:

This function drains the water.

If you have 2 drains, select which drain has to be opened.

Drain

0

Step XX Cycle XX Drain

Heat

2

Med./FW

Select Drain 1 or 2. If you only have 1 drain, you can only select 1.

Step XX Cycle XX Drain 2

Enter

Start

Step XX Cycle XX 0 min

Cold

1

Low

Enter the drain time (example: 1 minute 10 seconds).

Step XX Cycle XX 1 min 00 sec

Cold

1

Low

Drain

0

Step XX Cycle XX 1 min 10 sec

Enter

Start

NOTE: With the WE-8 control, it is **NOT** necessary to program a drain step before spin. The spin step incorporates the balancing routine and draining before beginning high speed spin (as a sub part of the spin step). A programmed drain step will be skipped if spin step is programmed immediately after it.

Programming

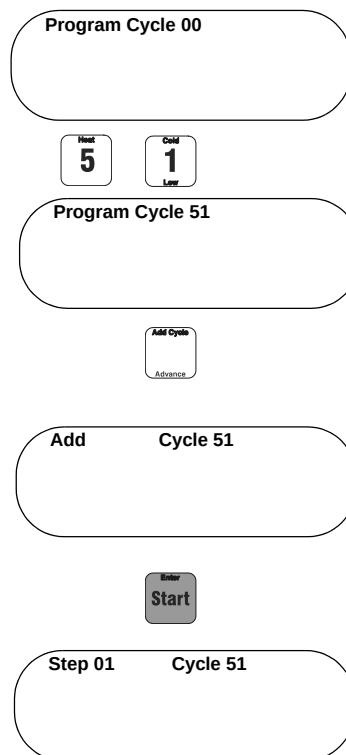
Example: Making a New Program

Program 51

- Step 1: Fill warm water to low level
(5 minutes 30 seconds time limit)
- Step 2: Supply 1 and 5 for 20 seconds
- Step 3: Heat up to 140°F (45 minutes time limit)
- Step 4: Wash action 4 for 8 minutes 00 seconds
- Step 5: Drain 1 for 1 minutes 25 seconds
- Step 6: Spin 3 for 8 minutes 30 seconds

To program or edit cycles turn the key into the Program Mode.

“Program Cycle xx” will be shown on the display.



Warm
3
High

Step 01 Cycle 51
Warm ☐

Cold
1
Low

Step 01 Cycle 51
Warm Low

Enter
Start

Step 01 Cycle 51
0 min

Heat
5

Warm
3
High

Drain
0

Step 01 Cycle 51
5 min 30 sec

Enter
Start

End Cycle 51

Exit Cycle
Add Step

Step 02 Cycle 51

Supply
6
Over

Step 02 Cycle 51
Supply

Cold
1
Low

Heat
5

Step 02 Cycle 51
Supply 1 5

Enter
Start

Step 02 Cycle 51
0 min

Drain
0

Heat
2
Heat, P/B

Drain
0

Step 02 Cycle 51
0 min 20 sec

Enter
Start

End Cycle 51

Exit Cycle
Add Step

Step 03 Cycle 51

Programming

Heat **5**

Step 03 Cycle 51
Heat

Enter
Start

Step 03 Cycle 51
0°F

Cold **1**
Low

Wash **4**

Drain **0**

Step 03 Cycle 51
140°F

Enter
Start

Step 03 Cycle 51
0 hours

Drain **0**

Wash **4**

Heat **5**

Step 03 Cycle 51
0 hours 45 min

Enter
Start

End Cycle 51

Edit Cycle
Add Step

Step 04 Cycle 51

Wash **4**

Step 04 Cycle 51
Wash

Wash **4**

Step 04 Cycle 51
Wash 4 10/20

Enter
Start

Step 04 Cycle 51
0 min

Aux Fill **8**

Drain **0**

Drain **0**

Step 04 Cycle 51
8 min 00 sec

Enter
Start

End Cycle 51

Edit Cycle
Add Step

Step 05 Cycle 51

Drain **0**

Step 05 Cycle 51
Drain 1

Enter
Start

Step 05 Cycle 51
0 min

Cold **1**
Low

Hot **2**
Med./Fill

Heat **5**

Step 05 Cycle 51
1 min 25 sec

Enter

Start

End Cycle 51

Edit Cycle

Add Step

Step 06 Cycle 51

Spin

9

No Rotations

Step 06 Cycle 51
Spin 1

Warm

3

High

Step 06 Cycle 51
Spin 3

Enter

Start

Step 06 Cycle 51
0 min

Aux Fill

8

Warm

3

High

Drain

0

Step 06 Cycle 51
8 min 30 sec

Enter

Start

End Cycle 51

Enter

Start

Enter to save ?

Enter

Start

Program Cycle 51

Program Cycle 00

Heat 5

Cold 1

Program Cycle 51

Edit Cycle

Add Step

Edit Cycle 51

Enter

Start

Name Cycle 51:
Cycle 51

Enter

Start

Step 01 Cycle 51
Warm Low

Edit Cycle

Add Step

Step 02 Cycle 51
Wash 1 18/3

Clear

Stop

Step 02 Cycle 51
Wash

Clear

Stop

Step 02 Cycle 51

Heat 7

Edit a Cycle

Change a Complete Step

To edit a cycle enter the cycle number (example: cycle 51).

Press the “Edit Cycle” button.

Press the “Enter” button to edit the cycle.

Press “Enter” to continue.

The first step of cycle 51 will display.

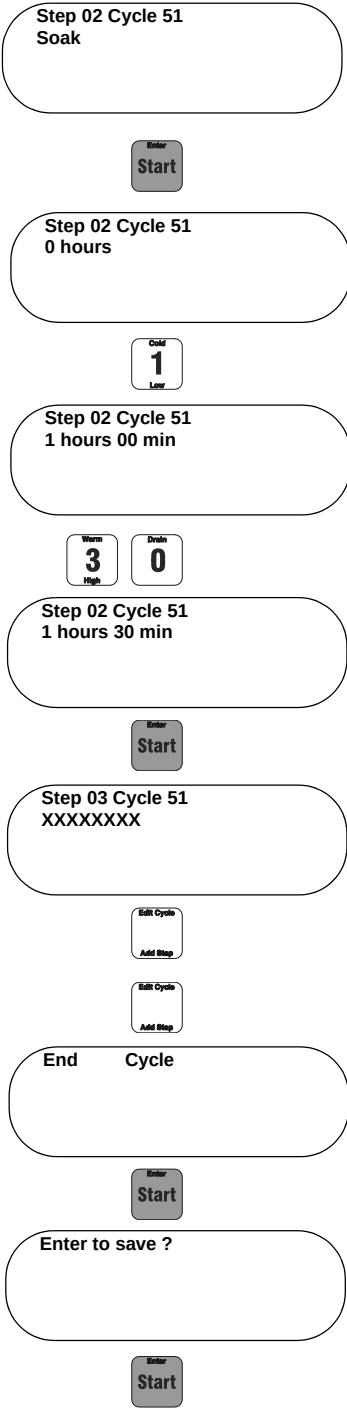
Select the step being edited by using the “Advance” button to go to the next step or the “Previous” button to go to the previous step.

If you would like to change the step, press the “Clear” button.

Select another wash action or press the “Clear” button to change the function.

Fill in the function desired (example: soak for 1 hour 30 minutes).

Press the “Soak” button.



The control is then in the next step of cycle 51. Press “Advance” until the display shows “end cycle 55”.

Press “Enter” to confirm.

Press “Enter” to save or “Stop” to ignore the changes.

Programming

Program Cycle 00

Heat 5 Cool 1 Low

Program Cycle 51

Edit Cycle Add Step

Edit Cycle 51

Enter Start

Name Cycle 51: Cycle 51

Enter Start

Step 01 Cycle 51 Warm Low

Add Cycle Advance

Step 02 Cycle 51 Wash 1 18/3

Enter Start

Step 02 Cycle 51 5 min 00 sec

Clear Stop

Step 01 Cycle 51 5 min

Input 6 Over

Changing the Time of a Step

To edit a cycle, enter the cycle number (example: cycle 51).

Press the “Edit Cycle” button.

Press the “Enter” button to edit the cycle.

Press “Enter” to continue.

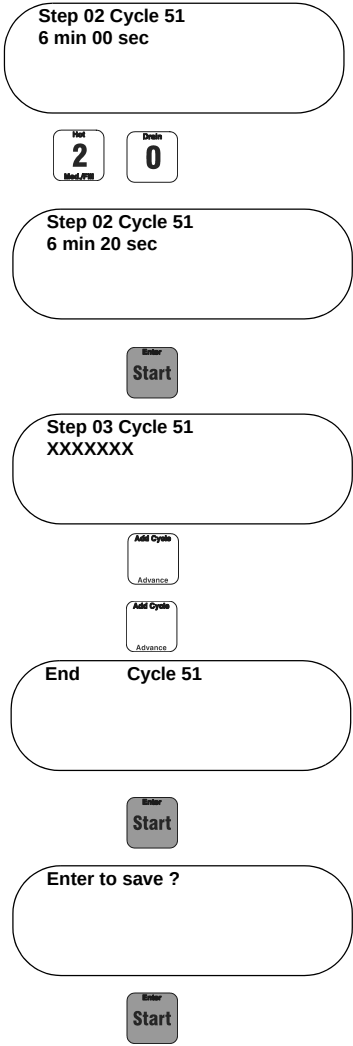
The first step of cycle 51 will display.

Select the step being edited by using the “Advance” button to go to the next step or the “Previous” button to go to the previous step.

Press “Enter” to change the time of the wash action.

Press “Clear” to change the time.

Fill in another time (example: 6 minutes 20 seconds).



Press “Enter” to go to the next step.

Press the “Advance” button until display shows “End Cycle 51”.

Press “Enter” to confirm.

Press “Enter” to save or “Stop” to ignore the changes.

Program Cycle 00

Heat 5

Cold 1 Low

Program Cycle 51

Edit Cycle

Add Step

Edit Cycle 51

Enter

Start

Name Cycle 51:
Cycle 51

Enter

Start

Step 01 Cycle 51
Warm Low

Add Cycle

Advance

Step 02 Cycle 51
Wash 1 18/3

Clear

Stop

Step 02 Cycle 51
Wash

Clear

Stop

Step 02 Cycle 51

Clear

Stop

Step deleted

Delete a Step

To edit a cycle, enter the cycle number (example: cycle 51).

Press the “Edit Cycle” button.

Press the “Enter” button to edit the cycle.

Press “Enter” to continue.

The first step of cycle 51 will display.

Select the step being edited by using the “Advance” button to go to the next step or the “Previous” button to go to the previous step.

Press the “Clear” button to change the step.

Press the “Clear” button again.

Press the “Clear” button once more.

The step is deleted. Press the “Advance” button to end cycle 51 and press “Enter” 2 times to save the settings.

Program Cycle 00

Heat 5 Cold 1

Program Cycle 51

Edit Cycle Add Step

Edit Cycle 51

Enter Start

Name Cycle 51:
Cycle 51

Enter Start

Step 01 Cycle 51
Warm Low

Add Cycle Advance

Step 02 Cycle 51
Wash 1 18/3

Edit Cycle Add Step

Step 02 Cycle 51

Supply 6 Over

Step 02 Cycle 51
Supply

Heat 7 Over

Insert a Step

To edit a cycle, enter the cycle number (example: cycle 51).

Press the “Edit Cycle” button.

Press the “Enter” button to edit the cycle.

Press “Enter” to continue.

The first step of cycle 51 will display.

Select the position where you would like to add a step by using the “Advance” button to go to the next step or the “Previous” button to go to the previous step.

Push the “Add Step” button to add a step.

The control will insert a step before the step selected.

Select the function (example: supply).

Press the supply number (example: supply 7).

Programming

Step 02 Cycle 51
Supply 7



Press “Enter” to confirm.

Step 02 Cycle 51
0 min

Enter the time to activate the supply
(example: 0 minutes 23 seconds).



Step 02 Cycle 51
0 min 00 sec



Step 02 Cycle 51
0 min 23 sec



Press “Enter” to confirm.

Step 03 Cycle 51
Wash 1 18/3



Press the “Advance” button until
“End Cycle 51” is displayed.

End Cycle 51



Press “Enter” to confirm.

Enter to save ?



Press “Enter” to save or “Stop” to ignore the changes.

Program Cycle 00

Display Temp
Erase Cycle

Erase Cycle 00

Heat 5 Heat 5

Erase Cycle 55

Enter Start

Enter to save ?

Enter Start

Delete a Cycle

Press the “Erase Cycle” button.

Press the number of the cycle being erased (example: 55).

Press “Enter” to confirm.

Press “Enter” to save or “Stop” to ignore the changes.

The diagram shows a control panel interface. At the top is a large rounded rectangular display showing "Program Cycle 00". Below this display are three smaller square buttons: "Auxiliary" with "No Reverse" below it, "Warm" with the number "3" and "High" below it, and "Drain" with the number "0" below it. Below these three buttons is another large rounded rectangular display showing "Enter to reload earlier settings". At the bottom of the panel is a single rectangular button labeled "Enter Start".

Reloading Previous Settings

This special function allows previous settings to be restored.

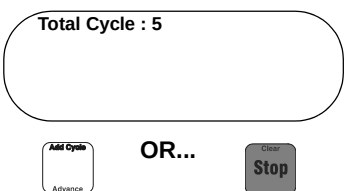
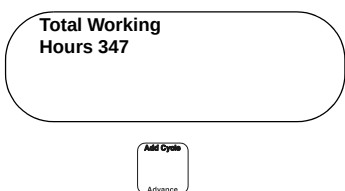
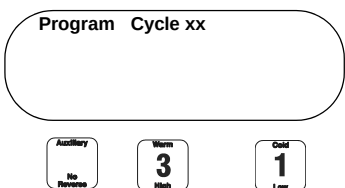
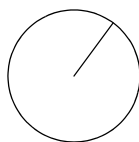
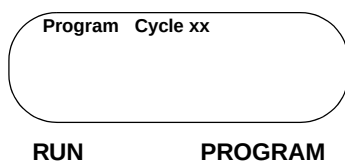
Press “Auxiliary”, “3”, “0”.

The control will ask if earlier settings are desired.

Press “Enter” to confirm the settings.

NOTE: This function only goes back to the last programming function entered.

Cycle Count



Reading Cycle Count

1. Enter Program Mode by turning key to PROGRAM position (xx represents a cycle number from 00 to 99).
2. Press "Auxiliary" key, then "3" key, then "1" key.
3. The total hours of cycle operation (actual run time) will display. Press "Advance" key to continue.
Example display shows 347 total hours (of all cycles).
4. Display now shows total cycle count. Press "Advance" key to continue into calibration mode, or press "Clear/Stop" key to exit.
Example display shows 5 total cycles have been run.

The diagram illustrates the sequence of screens and button presses for programming the machine. It consists of several rounded rectangular screens and three small square buttons.

- Screen 1:** Displays "Program Cycle 00".
- Buttons:** Three buttons are shown below the first screen:
 - Auxiliary:** A button with "No Reverse" at the bottom.
 - Wash:** A button with the number "3" and "High" below it.
 - Rinse:** A button with the number "1" and "Low" below it.
- Screen 2:** Displays "Total working hours : 0".
- Button:** A small square button labeled "Add Cycle" with "Advance" written below it.
- Screen 3:** Displays "level : 0.0" and "Enter to zero".
- Button:** Another small square button labeled "Add Cycle" with "Advance" written below it.
- Screen 4:** Displays "Spin" and "XXX rpm".
- Screen 5:** Displays "Reference x.xx".

Calibration of the Machine

The _x_PV should reflect the size selected in earlier steps.

Turn key to Program Mode.

Press "Auxiliary", "3", "1".

The total hours the machine was running will be displayed.

Press "Advance" and screen will show total cycles.

Press "Advance" to calibrate the water level sensor.

If the value is not zero, press "Enter" and the value will change to zero.

Press "Advance" to calibrate the motor.

The board will lock the door and let the motor spin at approximately 500 rpm (Firmware version 1.12 or higher). The rpm will increase on the display. If the machine reached approximately 500 rpm, the display will show a reference value.

After the reference value is shown, the machine will coast down to stop. When the machine stands still, the board will unlock the door.

Speed Calibration

This function automatically calibrates water level, distribution speed and spin speed.

Auxiliary
No Reverse

Warm
3
High

Cold
1
Low

Total working hours : #

Add Cycle

Advance

Total Cycle: #

Add Cycle

Advance

Calibration and testing

level: 0.0"
Enter to zero

Add Cycle

Advance

Motor Control

Distribute Speed
rpm

Spin
rpm

Calibrate 1
100 rpm

Spin
rpm

Calibrate 2
500 rpm

Ref: #
Offset: #

Coast down
Please wait

Program Cycle #

End of Calibration

If shell is empty of water and display reads 0.0", then press "Add Cycle/Advance".

Programming

Cycle 01 Initial Fill		
Step	Description	Min:sec
1	Warm Fill to High Level	3:30
2	Drain 2	2:30
3	Warm Fill to High Level	3:30
4	Drain 2	2:30
5	Warm Fill to High Level	3:30
6	Wash 3, no agitation (32 F)	1:00
7	Drain 2	2:30
8	Warm Fill to High Level	3:30
9	Wash 3, no agitation (32 F)	1:00
10	Drain 2	2:30
11	Warm Fill to High Level	3:30
12	Wash 3, no agitation (32 F)	1:00
13	Drain 2	2:30
14	Warm Fill to High Level	3:30
15	Wash 3, no agitation (32 F)	1:00
16	Drain 2	2:30
17	Warm Fill to High Level	3:30
18	Wash 3, no agitation (32 F)	1:00
19	Drain 2	2:30
20	Warm Fill to High Level	3:30
21	Wash 3, no agitation (32 F)	1:00
22	Drain 2	2:30
23	Warm Fill to High Level	3:30
24	Wash 3, no agitation (32 F)	1:00
25	Drain 2	2:30
26	Warm Fill to Low Level	3:30

Cycle 01 Initial Fill		
Step	Description	Min:sec
27	Wash 3, no agitation (32 F)	1:00
28	Drain 2	2:30

Cycle 02 White Linen's		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	1:30
2	Hot Fill to High Level	5:00
3	Wash 1 18/3 (32 F)	2:00
4	Drain 2	2:30
5	Auxiliary Fill to Med Level	1:30
6	Hot Fill to Med Level	5:00
7	Supply 4	0:03
8	Wash 1 18/3 (32 F)	5:30
9	Supply 5	0:30
10	Wash 1 18/3 (32 F)	5:00
11	Drain 1	2:30
12	Auxiliary Fill to High Level	1:30
13	Warm Fill to High Level	5:00
14	Supply 9	1:30
15	Wash 1 18/3 (32 F)	2:00
16	Drain 2	2:30
17	Warm Fill to High Level	5:00
18	Wash 1 18/3 (32 F)	2:00
19	Drain 2	2:30
20	Warm Fill to Low Level	5:00
21	Supply 6	0:30
22	Wash 1 18/3 (32 F)	4:00
23	Drain 2	2:30
24	Spin 4	3:00

Cycle 03 BDU's		
Step	Description	Min:sec
1	Auxiliary Fill to Med Level	1:30
2	Hot Fill to Med Level	5:00
3	Supply 4	0:05
4	Wash 1 18/3 (32 F)	5:30
5	Drain 1	2:30
6	Auxiliary Fill to Med Level	1:30
7	Hot Fill to Med Level	5:00
8	Wash 1 18/3 (32 F)	3:00
9	Drain 1	2:30
10	Warm Fill to High Level	5:00
11	Wash 1 18/3 (32 F)	3:00
12	Drain 2	2:30
13	Warm Fill to Med Level	5:00
14	Supply 6	0:30
15	Wash 1 18/3 (32 F)	3:00
16	Drain 2	2:30
17	Spin 4	3:00

Programming

Cycle 04 Color Linen's		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	1:30
2	Hot Fill to High Level	5:00
3	Wash 1 18/3 (32 F)	2:00
4	Drain 2	2:30
5	Auxiliary Fill to Med Level	1:30
6	Hot Fill to Med Level	5:00
7	Supply 4	0:07
8	Wash 1 18/3 (32 F)	5:30
9	Drain 1	2:30
10	Auxiliary Fill to High Level	1:30
11	Warm Fill to High Level	5:00
12	Wash 1 18/3 (32 F)	2:00
13	Drain 2	2:30
14	Warm Fill to High Level	5:00
15	Wash 1 18/3 (32 F)	2:00
16	Drain 2	2:30
17	Warm Fill to Low Level	5:00
18	Supply 6	0:30
19	Wash 1 18/3 (32 F)	4:00
20	Drain 2	2:30
21	Spin 4	3:00

Cycle 05 W/L Min Reuse		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	1:30
2	Hot Fill to High Level	5:00
3	Wash 1 18/3 (32 F)	2:00
4	Drain 1	2:30
5	Hot Fill to Med Level	5:00
6	Supply 4	0:03
7	Wash 1 18/3 (32 F)	5:30
8	Supply 5	0:30
9	Wash 1 18/3 (32 F)	5:00
10	Drain 1	2:30
11	Warm Fill to High Level	5:00
12	Supply 9	1:30
13	Wash 1 18/3 (32 F)	2:00
14	Drain 1	2:30
15	Warm Fill to High Level	5:00
16	Wash 1 18/3 (32 F)	2:00
17	Drain 1	2:30
18	Warm Fill to Low Level	5:00
19	Supply 6	0:30
20	Wash 1 18/3 (32 F)	4:00
21	Drain 2	2:30
22	Spin 4	3:00

Cycle 06 BDU's Min Reuse		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	1:30
2	Hot Fill to High Level	5:00
3	Supply 4	0:05
4	Wash 1 18/3 (32 F)	5:30
5	Drain 1	2:30
6	Hot Fill to Med Level	5:00
7	Wash 1 18/3 (32 F)	3:00
8	Drain 1	2:30
9	Warm Fill to High Level	5:00
10	Wash 1 18/3 (32 F)	3:00
11	Drain 1	2:30
12	Warm Fill to Low Level	5:00
13	Supply 6	0:30
14	Wash 1 18/3 (32 F)	3:00
15	Drain 2	2:30
16	Spin 4	3:00

Cycle 07 C/L Min Reuse		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	1:30
2	Hot Fill to High Level	5:00
3	Wash 1 18/3 (32 F)	2:00
4	Drain 1	2:30
5	Hot Fill to Med Level	5:00
6	Supply 4	0:07
7	Wash 1 18/3 (32 F)	5:30
8	Drain 1	2:30
9	Warm Fill to High Level	5:00
10	Wash 1 18/3 (32 F)	2:00
11	Drain 1	2:30
12	Warm Fill to High Level	5:00
13	Wash 1 18/3 (32 F)	2:00
14	Drain 1	2:30
15	Warm Fill to Low Level	5:00
16	Supply 6	0:30
17	Wash 1 18/3 (32 F)	4:00
18	Drain 2	2:30
19	Spin 4	3:00

Programming

Cycle 08 W/L No Reuse		
Step	Description	Min:sec
1	Hot Fill to High Level	5:00
2	Wash 1 18/3 (32 F)	2:00
3	Drain 1	2:30
4	Hot Fill to Med Level	5:00
5	Supply 4	0:03
6	Wash 1 18/3 (32 F)	5:30
7	Supply 5	0:30
8	Wash 1 18/3 (32 F)	5:00
9	Drain 1	2:30
10	Warm Fill to High Level	5:00
11	Supply 9	1:30
12	Wash 1 18/3 (32 F)	2:00
13	Drain 1	2:30
14	Warm Fill to High Level	5:00
15	Wash 1 18/3 (32 F)	2:00
16	Drain 1	2:30
17	Warm Fill to Low Level	5:00
18	Supply 6	0:30
19	Wash 1 18/3 (32 F)	4:00
20	Drain 1	2:30
21	Spin 4	3:00

Cycle 09 BDU;s No Reuse		
Step	Description	Min:sec
1	Hot Fill to High Level	5:00
2	Supply 4	0:05
3	Wash 1 18/3 (32 F)	5:30
4	Drain 1	2:30
5	Hot Fill to Med Level	5:00
6	Wash 1 18/3 (32 F)	3:00
7	Drain 1	2:30
8	Warm Fill to High Level	5:00
9	Wash 1 18/3 (32 F)	3:00
10	Drain 1	2:30
11	Warm Fill to Low Level	5:00
12	Supply 6	0:30
13	Wash 1 18/3 (32 F)	3:00
14	Drain 1	2:30
15	Spin 4	3:00

Cycle 10 CL NoReuse		
Step	Description	Min:sec
1	Hot Fill to High Level	5:00
2	Wash 1 18/3 (32 F)	2:00
3	Drain 1	2:30
4	Hot Fill to Med Level	5:00
5	Supply 4	0:07
6	Wash 1 18/3 (32 F)	5:30
7	Drain 1	2:30
8	Warm Fill to High Level	5:00
9	Wash 1 18/3 (32 F)	2:00
10	Drain 1	2:30
11	Warm Fill to High Level	5:00
12	Wash 1 18/3 (32 F)	2:00
13	Drain 1	2:30
14	Warm Fill to Low Level	5:00
15	Supply 6	0:30
16	Wash 1 18/3 (32 F)	4:00
17	Drain 1	2:30
18	Spin 4	3:00

Cycle 11 Bag Filter		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	1:30
2	Warm Fill to High Level	5:00
3	Supply 4	0:09
4	Wash 1 18/3 (32 F)	5:30
5	Drain 1	2:30
6	Warm Fill to High Level	5:00
7	Supply 6	0:05
8	Wash 1 18/3 (32 F)	5:00
9	Drain 1	2:30
10	Spin 1	0:30

Programming

Cycle 30 Reuse Topoff		
Step	Description	Min:sec
1	Warm Fill to High Level	5:00
2	Drain 2	2:30

Cycle 31 Filter Flush/Cln		
Step	Description	Min:sec
1	Warm Fill to High Level	5:00
2	Drain 2	2:30
3	Warm Fill to High Level	5:00
4	Drain 2	2:30
5	Wash 3, no agitation (32 F)	3:00
6	Warm Fill to High Level	5:00
7	Drain 2	2:30
8	Wash 3, no agitation (32 F)	3:00
9	Warm Fill to Low Level	5:00
10	Drain 2	2:30

Cycle 32 Filter Storage		
Step	Description	Min:sec
1	Warm Fill to High Level	5:00
2	Supply 1	1:30
3	Drain 2	2:30
4	Warm Fill to High Level	5:00
5	Supply 2	1:30
6	Drain 2	2:30
7	Warm Fill to High Level	5:00
8	Drain 2	2:30
9	Warm Fill to Med Level	5:00
10	Drain 2	2:30
11	Wash 3, no agitation (32 F)	2:00
12	Auxiliary Fill to Med Level	1:30
13	Drain 2	2:30
14	Auxiliary Fill to Med Level	1:30
15	Wash 3, no agitation (32 F)	1:30
16	Drain 2	2:30
17	Auxiliary Fill to Med Level	1:30
18	Wash 3, no agitation (32 F)	1:30
19	Drain 2	2:30
20	Auxiliary Fill to Med Level	1:30
21	Wash 3, no agitation (32 F)	1:30
22	Drain 2	2:30
23	Auxiliary Fill to Med Level	1:30
24	Wash 3, no agitation (32 F)	1:30
25	Drain 2	2:30
26	Auxiliary Fill to Med Level	1:30
27	Wash 3, no agitation (32 F)	1:30

Cycle 32 Filter Storage		
Step	Description	Min:sec
28	Drain 2	2:30
29	Auxiliary Fill to Med Level	1:30
30	Wash 3, no agitation (32 F)	1:30
31	Drain 2	2:30
32	Auxiliary Fill to Med Level	5:00
33	Wash 3, no agitation (32 F)	1:30
34	Drain 2	2:30

Programming

Cycle 33 Winter Soap Dispenser		
Step	Description	Min:sec
1	Supply 4	0:03
2	Wash 3, no agitation (32 F)	3:00
3	Supply 5	3:00
4	Supply 6	3:00

Cycle 34 Winter Cold Water		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	2:00
2	Cold Fill to High Level	2:00
3	Supply 1	1:00
4	Supply 3	1:00
5	Supply 9	1:00
6	Drain 2	2:00
7	Drain 1	2:00

Cycle 35 Winter Hot Water		
Step	Description	Min:sec
1	Hot Fill to High Level	2:00
2	Supply 2	1:00
3	Drain 2	2:00
4	Drain 1	2:00

Cycle 36 Extract Only		
Step	Description	Min:sec
1	Drain 1	1:00
2	Spin 1	0:30
3	Spin 4	3:00

Programming

Cycle 52 White Linen's ND		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	1:30
2	Hot Fill to High Level	5:00
3	Wash 1 18/3 (32 F)	2:00
4	Drain 2	2:30
5	Auxiliary Fill to Med Level	1:30
6	Hot Fill to Med Level	5:00
7	Supply 1	0:30
8	Wash 1 18/3 (32 F)	5:00
9	Supply 2	0:30
10	Wash 1 18/3 (32 F)	5:00
11	Drain 1	2:30
12	Auxiliary Fill to High Level	1:30
13	Warm Fill to High Level	5:00
14	Supply 9	1:30
15	Wash 1 18/3 (32 F)	2:00
16	Drain 2	2:30
17	Warm Fill to High Level	5:00
18	Wash 1 18/3 (32 F)	2:00
19	Drain 2	2:30
20	Warm Fill to Low Level	5:00
21	Supply 3	0:30
22	Wash 1 18/3 (32 F)	4:00
23	Drain 2	2:30
24	Spin 4	3:00

Cycle 53 BDU's ND		
Step	Description	Min:sec
1	Auxiliary Fill to Med Level	1:30
2	Hot Fill to Med Level	5:00
3	Supply 1	0:30
4	Wash 1 18/3 (32 F)	5:00
5	Drain 1	2:30
6	Auxiliary Fill to Med Level	1:30
7	Hot Fill to Med Level	5:00
8	Wash 1 18/3 (32 F)	3:00
9	Drain 1	2:30
10	Warm Fill to High Level	5:00
11	Wash 1 18/3 (32 F)	3:00
12	Drain 2	2:30
13	Warm Fill to Med Level	5:00
14	Supply 3	0:30
15	Wash 1 18/3 (32 F)	3:00
16	Drain 2	2:30
17	Spin 4	3:00

Cycle 54 Color Linen's ND		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	1:30
2	Hot Fill to High Level	5:00
3	Wash 1 18/3 (32 F)	2:00
4	Drain 2	2:30
5	Auxiliary Fill to Med Level	1:30
6	Hot Fill to Med Level	5:00
7	Supply 1	0:30
8	Wash 1 18/3 (32 F)	5:00
9	Drain 1	2:30
10	Auxiliary Fill to High Level	1:30
11	Warm Fill to High Level	5:00
12	Wash 1 18/3 (32 F)	2:00
13	Drain 2	2:30
14	Warm Fill to High Level	5:00
15	Wash 1 18/3 (32 F)	2:00
16	Drain 2	2:30
17	Warm Fill to Low Level	5:00
18	Supply 3	0:30
19	Wash 1 18/3 (32 F)	4:00
20	Drain 2	2:30
21	Spin 4	3:00

Cycle 55 W/L Min Reuse ND		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	1:30
2	Hot Fill to High Level	5:00
3	Wash 1 18/3 (32 F)	2:00
4	Drain 1	2:30
5	Hot Fill to Med Level	5:00
6	Supply 1	0:30
7	Wash 1 18/3 (32 F)	5:00
8	Supply 2	0:30
9	Wash 1 18/3 (32 F)	5:00
10	Drain 1	2:30
11	Warm Fill to High Level	5:00
12	Supply 9	1:30
13	Wash 1 18/3 (32 F)	2:00
14	Drain 1	2:30
15	Warm Fill to High Level	5:00
16	Wash 1 18/3 (32 F)	2:00
17	Drain 1	2:30
18	Warm Fill to Low Level	5:00
19	Supply 3	0:30
20	Wash 1 18/3 (32 F)	4:00
21	Drain 2	2:30
22	Spin 4	3:00

Programming

Cycle 56 BDU Min Reuse ND		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	1:30
2	Hot Fill to High Level	5:00
3	Supply 1	0:30
4	Wash 1 18/3 (32 F)	5:00
5	Drain 1	2:30
6	Hot Fill to Med Level	5:00
7	Wash 1 18/3 (32 F)	3:00
8	Drain 1	2:30
9	Warm Fill to High Level	5:00
10	Wash 1 18/3 (32 F)	3:00
11	Drain 1	2:30
12	Warm Fill to Low Level	5:00
13	Supply 3	0:30
14	Wash 1 18/3 (32 F)	3:00
15	Drain 2	2:30
16	Spin 4	3:00

Cycle 57 C/L Min Reuse ND		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	1:30
2	Hot Fill to High Level	5:00
3	Wash 1 18/3 (32 F)	2:00
4	Drain 1	2:30
5	Hot Fill to Med Level	5:00
6	Supply 1	0:30
7	Wash 1 18/3 (32 F)	5:00
8	Drain 1	2:30
9	Warm Fill to High Level	5:00
10	Wash 1 18/3 (32 F)	2:00
11	Drain 1	2:30
12	Warm Fill to High Level	5:00
13	Wash 1 18/3 (32 F)	2:00
14	Drain 1	2:30
15	Warm Fill to Low Level	5:00
16	Supply 3	0:30
17	Wash 1 18/3 (32 F)	4:00
18	Drain 2	2:30
19	Spin 4	3:00

Cycle 58 W/L No Reuse ND		
Step	Description	Min:sec
1	Hot Fill to High Level	5:00
2	Wash 1 18/3 (32 F)	2:00
3	Drain 1	2:30
4	Hot Fill to Med Level	5:00
5	Supply 1	0:30
6	Wash 1 18/3 (32 F)	5:00
7	Supply 2	0:30
8	Wash 1 18/3 (32 F)	5:00
9	Drain 1	2:30
10	Warm Fill to High Level	5:00
11	Supply 9	1:30
12	Wash 1 18/3 (32 F)	2:00
13	Drain 1	2:30
14	Warm Fill to High Level	5:00
15	Wash 1 18/3 (32 F)	2:00
16	Drain 1	2:30
17	Warm Fill to Low Level	5:00
18	Supply 3	0:30
19	Wash 1 18/3 (32 F)	4:00
20	Drain 1	2:30
21	Spin 4	3:00

Cycle 59 BDUs No Reuse ND		
Step	Description	Min:sec
1	Hot Fill to High Level	5:00
2	Supply 1	0:30
3	Wash 1 18/3 (32 F)	5:00
4	Drain 1	2:30
5	Hot Fill to Med Level	5:00
6	Wash 1 18/3 (32 F)	3:00
7	Drain 1	2:30
8	Warm Fill to High Level	5:00
9	Wash 1 18/3 (32 F)	3:00
10	Drain 1	2:30
11	Warm Fill to Low Level	5:00
12	Supply 3	0:30
13	Wash 1 18/3 (32 F)	3:00
14	Drain 1	2:30
15	Spin 4	3:00

Programming

Cycle 60 C/L No Reuse ND		
Step	Description	Min:sec
1	Hot Fill to High Level	5:00
2	Wash 1 18/3 (32 F)	2:00
3	Drain 1	2:30
4	Hot Fill to Med Level	5:00
5	Supply 1	0:30
6	Wash 1 18/3 (32 F)	5:00
7	Drain 1	2:30
8	Warm Fill to High Level	5:00
9	Wash 1 18/3 (32 F)	2:00
10	Drain 1	2:30
11	Warm Fill to High Level	5:00
12	Wash 1 18/3 (32 F)	2:00
13	Drain 1	2:30
14	Warm Fill to Low Level	5:00
15	Supply 3	0:30
16	Wash 1 18/3 (32 F)	4:00
17	Drain 1	2:30
18	Spin 4	3:00

Cycle 61 Bag Filter ND		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	1:30
2	Warm Fill to High Level	5:00
3	Supply 1	0:30
4	Wash 1 18/3 (32 F)	5:00
5	Drain 1	2:30
6	Warm Fill to High Level	5:00
7	Wash 1 18/3 (32 F)	5:00
8	Drain 1	2:30
9	Spin 1	0:30

Cycle 96 Supply Test		
Step	Description	Min:sec
1	Supply 1	1:00
2	Supply 2	1:00
3	Supply 3	1:00
4	Supply 4	1:00
5	Supply 5	1:00
6	Supply 6	1:00
7	Supply 7	1:00
8	Supply 8	1:00
9	Supply 9	1:00
10	Supply 1, 4	1:00
11	Supply 2, 5	1:00
12	Supply 3, 6	1:00
13	Supply 4, 5	1:00
14	Cold Fill to Low Level	1:00
15	Drain 1	1:00
16	Cold Fill to Low Level	1:00
17	Drain 1	1:00

Cycle 97 Drain Test		
Step	Description	Min:sec
1	Wash 3, no agitation (32 F)	1:00
2	Drain 2	1:00
3	Auxiliary Fill to Low Level	1:00

Programming

Cycle 98 Washer Test		
Step	Description	Min:sec
1	Cold Fill to Low Level	5:00
2	Supply 1	0:45
3	Supply 2	0:10
4	Supply 3	0:10
5	Supply 4	0:10
6	Supply 5	0:10
7	Supply 6	0:10
8	Supply 7	0:10
9	Supply 8	0:10
10	Supply 9	0:10
11	Hot Fill to Med Level	5:00
12	Warm Fill to High Level	5:00
13	Wash 1, no reverse (32 F)	0:30
14	Wash 2 3/27 (32 F)	0:30
15	Wash 3, no agitation (32 F)	0:30
16	Wash 4 10/20 (32 F)	0:30
17	Drain 1	1:00
18	Cold Fill to Overflow	8:00
19	Soak (32 F)	0h02
20	Drain 2	1:00
21	Auxiliary Fill to Low Level	0:15
22	Cold Fill to Med Level	5:00
23	Wash 1, no reverse (32 F)	0:40
24	Drain 2	1:00
25	Spin 1	2:20
26	Spin 2	2:00
27	Spin 3	2:00

Cycle 98 Washer Test		
Step	Description	Min:sec
28	Spin 4	2:00

Cycle 99 Reuse Test		
Step	Description	Min:sec
1	Auxiliary Fill to High Level	2:00
2	Drain 2	2:30
3	Auxiliary Fill to High Level	2:00
4	Wash 3, no agitation (32 F)	3:00
5	Drain 2	2:00
6	Auxiliary Fill to High Level	2:00
7	Wash 3, no agitation (32 F)	3:00
8	Drain 2	2:00
9	Auxiliary Fill to High Level	2:00
10	Wash 3, no agitation (32 F)	3:00
11	Drain 2	2:00

Programming

Machine

Type : _X55PV
Units : English
Offset : 1.5 inch
Diameter drum : 20.5 inch
Diameter tub : 23.0 inch
Depth drum : 15.5 inch
Level hysteresis : 1 inch
Temperature hysteresis : 4 F
Heat : 0 kW

In & Out

Drain1 : Valve
Drain2 : Pump
Inlet options : Reuse

Behaviour

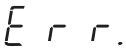
Advance : yes
Chemical hold : no
Spin retries : 5
Show temp : yes

Inverter Drive Error Codes

Operation Panel Indication	Name	Description and NOTES	Check point	Corrective action
E.O C 1	Overcurrent shut-off during acceleration	When the inverter output current reaches or exceeds approximately 200% of the rated current during acceleration, the protective circuit is activated to stop the inverter output.	Check the motor cable insulation and connection for output short-circuit/ground fault.	Repair the wiring.
E.O C 2	Overcurrent shut-off during constant speed	When the inverter output current reaches or exceeds approximately 200% of the rated current during constant speed, the protective circuit is activated to stop the inverter output.	Check the motor cable insulation and connection for output short-circuit/ground fault.	Repair the wiring.
E.O C 3	Overcurrent shut-off during deceleration	When the inverter output current reaches or exceeds approximately 200% of the rated current during deceleration (other than acceleration or constant speed), the protective circuit is activated to stop the inverter output.	a. Check for sudden speed reduction. b. Check the motor cable insulation and connection for output short-circuit/ground fault.	a. Contact Alliance Laundry Systems' Customer Service department. b. Repair the wiring.
E.O U 1	Regenerative overvoltage shut-off during acceleration	If regenerative energy causes the inverter's internal main circuit DC voltage to reach or exceed the specified value, the protective circuit is activated to stop the inverter output. It may also be activated by a surge voltage generated in the power supply system	Check to make sure the machine is loaded properly and that the load is balanced.	Load the machine properly to distribute the load evenly.
E.O U 2	Regenerative overvoltage shut-off during constant speed	If regenerative energy causes the inverter's internal main circuit DC voltage to reach or exceed the specified value, the protective circuit is activated to stop the inverter output. It may also be activated by a surge voltage generated in the power supply system.	Check to make sure the machine is loaded properly and that the load is balanced.	Load the machine properly to distribute the load evenly.
E.O U 3	Regenerative overvoltage shut-off during deceleration or stop	If regenerative energy causes the inverter's internal main circuit DC voltage to reach or exceed the specified value, the protective circuit is activated to stop the inverter output. It may also be activated by a surge voltage generated in the power supply system.	Check to make sure the machine is loaded properly and that the load is balanced.	Load the machine properly to distribute the load evenly.
E.F H N	Motor overload shut-off (electronic overcurrent protection)	The electronic overcurrent protection in the inverter detects motor overload due to overload or reduced cooling capability due to overload or reduced cooling capability during constant-speed operation to stop the inverter output. When a multi-pole motor or two or more motors are run, provide a thermal relay in the output side of the inverter.	Verify that the AC drive's parameters are correct.	Contact Alliance Laundry Systems' Customer Service department.

Inverter Drive Error Codes

Operation Panel Indication	Name	Description and NOTES	Check point	Corrective action
E.F H F	Inverter overload shut-off (electronic overcurrent protection)	If a current of more than 150% of the rated output current flows and overcurrent shut-off does not occur (200% or less) inverse-time characteristics cause the electronic overcurrent protection to be activated to stop the inverter output in order to protect the output transistors. Note: Resetting the inverter initializes the internal heat integrating data of the electronic overcurrent protection.	Verify that the AC drive's parameters are correct.	Contact Alliance Laundry Systems' Customer Service department.
E.F I n	Fin overheat	If the cooling fin overheats, the overheat sensor is actuated to stop the inverter output.	• Check for too high ambient temperature. • Check for cooling fin clogging	Verify that the AC drive's parameters are correct. Contact Alliance Laundry Systems' Customer Service department.
E. b E	Brake transistor alarm detection	Internal Circuit Error		Contact Alliance Laundry Systems' Customer Service department.
E. G F	Output side ground fault overcurrent protection	This function stops the inverter output if a ground fault overcurrent flows due to a ground fault which occurred in the inverter's output (load) side. Use Pr. 249 "ground fault detection at start" to set whether the protective function is to be activated or not. (In the 400V class, the protective function is always active.)	Check the motor cable insulation and connection for output short-circuit/ground fault.	Repair the wiring.
E.O H F	External thermal relay operation	If the external thermal relay designed for motor overheat protection or the internally mounted temperature relay in the motor switches on (contacts open), the inverter output is stopped. If the relay contacts are reset automatically, the inverter will not restart unless it is reset.	Check for motor overheating. Check to make sure the machine is loaded properly and that the load is balanced.	Load the machine properly to distribute the load evenly.
E.O L F	Stall prevention	The running frequency has fallen to 0 with stall prevention activated.	Check the motor for a "locked rotor" condition.	Verify that the AC drive's parameters are correct. Contact Alliance Laundry Systems' Customer Service department.
E.L F	Output phase failure protection	This function stops the inverter output if one of the three phases (U, V, W) on the inverter's output side (load side) results in open phase.	Check the wiring. Check the motor for a fault.	Tighten the wire connections. Replace the connectors as needed.
F n	Fan fault	For the inverter which contains a cooling fan, FN appears on the operation panel when the cooling fan fails.	Check the cooling fan's operation.	Replace the fan as needed.

Operation Panel Indication	Name	Description and NOTES	Check point	Corrective action
	Stall prevention (overcurrent)	During acceleration—If a current of more than 150% of the rated inverter current flows in the motor this function stops the increase in frequency until the overload current reduces to prevent the inverter from resulting in overcurrent shut-off. When the overload current has reduces below 150%, this function increases the frequency again. During constant-speed operation—If a current of more than 150%, this function lowers the frequency again. When the overload current has reduces below 150%, this function increases the frequency again. During deceleration—If a current of more than 150% of the rated inverter current flows in the motor, this function stops the decrease in frequency until the overload current reduces to prevent the inverter from resulting in overcurrent shut-off. When the overload current has reduced below 150%, this function decreases the frequency again.	a. Check to make sure the machine is loaded properly and that the load is balanced. b. Verify that the AC drive's parameters are correct.	a. Load the machine properly to distribute the load evenly. b. Contact Alliance Laundry Systems' Customer Service department.
	Stall prevention (overvoltage)	During deceleration-If the regenerative energy of the motor exceeds the brake capability, this function stops the decrease in frequency to prevent overvoltage shutoff. As soon as the regenerative energy has reduced, deceleration resumes.	Check to make sure the machine is loaded properly and that the load is balanced.	Load the machine properly to distribute the load evenly.
	PU stop	A stop made by pressing the  key of the PU has been set in Pr. 75 "PU stop selection"	Check for a stop made by pressing the  key of the operation panel during external operation.	Perform operation correctly.
		This alarm appears if: • The RES signal is on; • You attempted to set any parameter value in the external operation mode; • You attempted to change the operation mode during operation; • You attempted to set any parameter value outside its setting range. • You attempted to set any parameter value during operation (while signal STF or STR is ON). • You attempted to set any parameter value while parameter write is being inhibited in Pr. 77 "parameter write inhibit selection".		Perform operation correctly.

Inverter Drive Error Codes

Operation Panel Indication	Name	Description and NOTES	Check point	Corrective action
	Under Voltage	The power supply has fallen below a specified level.	This fault appears every time the machine is powered down. Check the power supply voltage.	Apply the proper voltage to the machine.